

ABSTRACT OF THE DISCLOSURE

[0068] A method and apparatus for recovering data from a failed disk drive in a disk drive array. The method and apparatus includes storing data on an array of disk drives by dividing extents of data into data segments and defining a parity group including at least one data segment from a plurality of data segments from different extents. Parity segments are generated from the data segments in the parity group and stored in the parity group. Furthermore, a second parity segment is generated from the parity segments and stored with the parity group. The method and apparatus then outputs data in realtime to users in a normal disk access mode from parity groups without the failed disk drive, and outputs recovered data in realtime to the users in a parity correction mode from the parity group containing the failed disk drive.

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